

THE OCCURRENCE OF
SPHAEROMA SERRATUM (FABRICIUS, 1787)
IN THE WESTERN SOUTH ATLANTIC
(CRUSTACEA: ISOPODA)

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Abstract. — The European species *Sphaeroma serratum* is extending its range on the Argentine coast. It was probably introduced by ships in the harbor of Mar del Plata (Argentina) and subsequently spread to adjacent rocky intertidal communities and other harbors of the Buenos Aires Province. A key is given for identification of known southwestern Atlantic species of *Sphaeroma*.

Sphaeroma serratum was first recorded from the Atlantic coast of Europe, later from the Mediterranean and Atlantic coasts of northern Africa and more recently from the Black Sea, southern Africa and western Australia (Kensley 1978, Jacobs 1987). *Sphaeroma serratum* has been known from Buenos Aires Province since 1964, where it was known only from Mar del Plata harbor (38°08'S, 57°31'W) having been found in samples taken during fouling studies (Bastida 1968, 1971; Bastida et al. 1980). It has since been found as part of fouling communities in other harbors in Argentina, e.g., Puerto Quequén (38°36'S, 58°40'W), Ingeniero White (38°47'S, 62°14'W) and Puerto Belgrano (38°54'S, 62°06'W) (Bastida 1972, Bastida & Torti 1973, Bastida & Brankevich 1982, Martínez et al. 1984). Having colonized these harbor areas, in recent years *Sphaeroma serratum* has spread to natural rocky areas around Mar del Plata and has become a member of the local intertidal community (Bastida & L'Hoste 1976).

Sphaeroma serratum has not yet been found on the Patagonian coasts, but its chances of colonization are thought to be high. The wide sandy beaches of Buenos Aires probably acted as a natural barrier to the spread of the species southward (Escofet et al. 1979). *Sphaeroma serratum* has not been recorded from the coast of Uruguay

and Brazil, although the genus is represented in Brazil by three other species, *Sphaeroma terebrans* Bate, 1866, *S. anandalei* Stebbing, 1911, and *S. walkeri* Stebbing, 1905 (Loyola e Silva 1960, Pires 1982). The distribution of *Sphaeroma serratum* north of Argentina may be limited by the estuary of the Río de la Plata due to its great extension and the influence of its waters on Argentine and Uruguayan coasts. The method of introduction of *Sphaeroma serratum* was probably as part of the fouling community on the hull of ships arriving in Argentina. This transportation was observed for *Sphaeroma walkeri* in Victoria Harbor (Hong Kong) and its dispersal to areas around Hong Kong (Mak et al. 1985). Other methods of transportation could have been by ballast water (Carlton & Iverson 1981) and less probably by pieces of wood floating adrift. Burrowed pieces of wood found in coastal areas are frequently inhabited by specimens of *Sphaeroma serratum*, which obtain protection in the teredine galleries and holes (Bastida & Torti 1972).

Key to the Southwestern Atlantic Species
of *Sphaeroma*

1. Pleotelson triangular, apex pointed.
Pereon with tubercles. Mandible
without lacinia mobilis . . . *S. terebrans*

- Pleotelson spoon-shaped, apex markedly rounded. Body with or without tubercles. Mandible with or without lacinia mobilis 2
- 2. Pereon and pleon without tubercles. Left mandible with lacinia mobilis *S. serratum*
- Body with tubercles. Left mandible with or without lacinia mobilis ... 3
- 3. Pereon with numerous round tubercles. Pleotelson with 2 submedian rows of tubercles, diverging from the base and almost reaching the apex. Left mandible with true lacinia mobilis *S. walkeri*
- Pereon with transversally elongate tubercles. Pleotelson with 2 pair of tubercles situated on either side of the midline, followed by a single median tubercle. Mandible without true lacinia mobilis *S. anandalei*

Material

One hundred fifty specimens of *Sphaeroma serratum* from different localities of the Buenos Aires Province were analyzed. The studied material is deposited in the collection of the Laboratory of Benthic and Fouling communities of the INIDEP (Mar del Plata, Argentina) and 12 specimens from the port of Mar del Plata are deposited in the National Museum of Natural History, Washington, D.C., USNM 139316.

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